

SAFETY SYRINGE NEEDLE DEVICE WITH  
INTERCHANGEABLE AND RETRACTABLE NEEDLE PLATFORM

ABSTRACT OF THE DISCLOSURE

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The syringe includes a barrel, a plunger, and an adapter for mounting the needle in the distal end of the barrel. The adapter includes a protrusion projecting away from the needle end and into the barrel defining an annular space between the barrel and the protrusion. The plunger and protrusion have complementary surfaces whereby the plunger may grip the adapter for removal of the adapter into the interior of the barrel after use. These complementary surfaces afford initial resistance to further axial movement of the plunger toward the adapter, signalling the user that further axial pressure will permanently lock the plunger and adapter to one another whereby, upon application of full axial pressure on the plunger, the complementary surfaces of the plunger and adapter permanently lock to one another to enable joint unitary movement of the plunger and adapter together with the needle carried by the adapter into the barrel. The adapter includes vent passages communicating between the central passage through the adapter and the annular space whereby air can be vented from the barrel after receiving fluid within the barrel and prior to injection. Thus, the syringe 20 may be oriented in a vertical position needle end uppermost with the vent passages forming the most superior portion of the barrel interior whereby air may be vented.